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Inaugural Essay

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Paperd March 1828
Cholera Infantum.

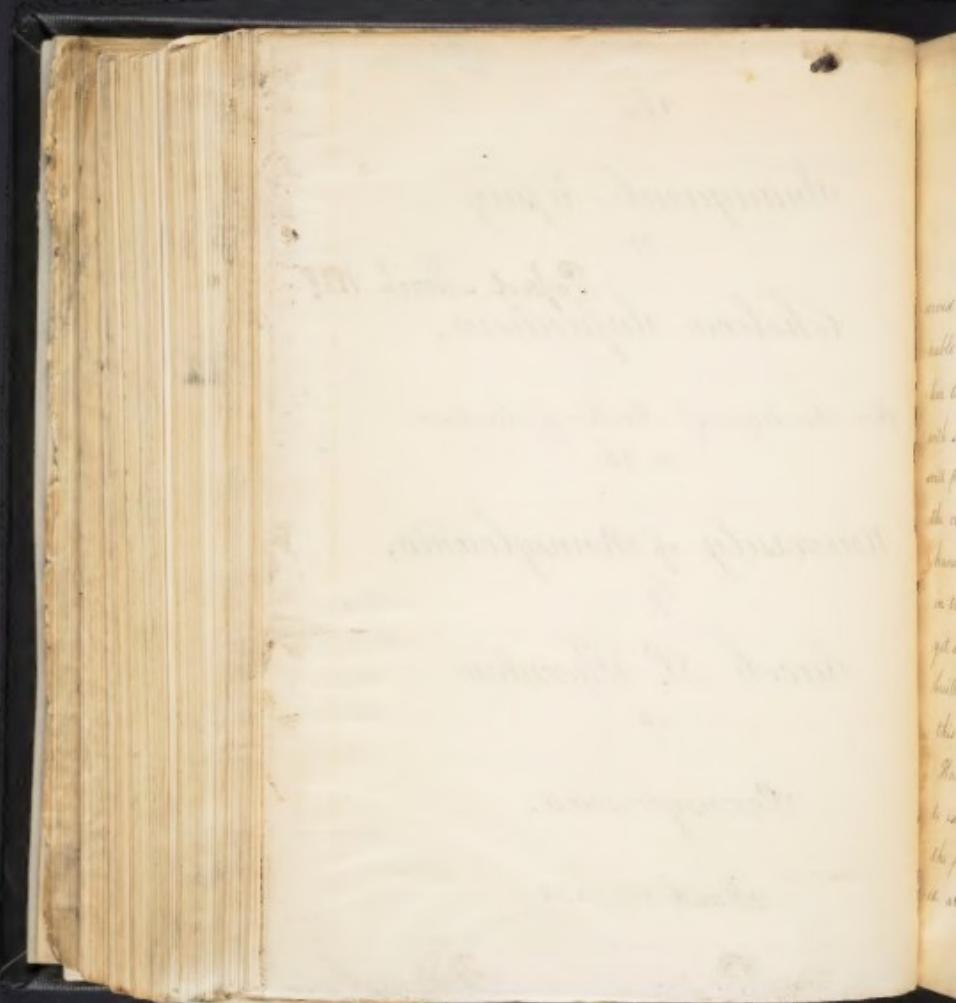
for the degree of Doctor of Medicine
in the

University of Pennsylvania,
by

Jacob P. Thornton
of

Pennsylvania.

March 1st 1828.



Cholera Infantum.

Interested in a complaint which is observed annually to swell our bills of mortality to a considerable extent, and which seems in a great measure peculiar to our own country, I enter upon the following essay with so much the more satisfaction, as I hope the inquiry will prove in no small degree instructive to myself. To the country practitioner it would scarcely, perhaps, be known except from his reading, for although children in the country are undoubtedly liable to bowel affections yet it is chiefly to the crowded lanes, and other thickly built parts of a city that we must resort to observe this peculiar disease.

Having through the kindness of a friend, been enabled to examine the health office reports, as forwarded from the principal cities in our union, I was much astonished at the great disparity existing among them in this

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particular affection of children. An outline of the result of this inquiry is here subjoined.

It appears that in Philadelphia, during the year 1823, there were two hundred and fifteen deaths from cholera of persons under five years of age. The total number of deaths from this disease was two hundred and sixty five, being about one seventeenth part of the whole mortality during that year. In 1826, two hundred and forty four persons died of cholera; two hundred and twenty four being under five years of age. In the intermediate years they did not amount to quite so much. In New York, the number did not exceed one hundred and fifty one in any year, during the same period or one thirty third of the whole. In Baltimore, during the year 1826, there were one hundred and nineteen deaths from cholera infantum alone, or one sixteenth of the whole number. In the Charlestown reports the disease is not mentioned at all. From this statement there would appear something in the sea air, which is

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inimical to the prevalence of cholera. Philadelphia and Baltimore, which are somewhat remote from its influence having a greater proportional majority, whilst New York and all the other seaports, are much less subject to it.

With these few remarks, I leave this fact (of no small practical importance) and proceed to the history of the disease.

The first point of inquiry, will be an examination into those causes, which are known with more certainty to give rise to an attack of cholera infantum;—these may be considered either as predisposing or exciting. The predisposing causes may be stated as excessive heat, especially when combined with an impure atmosphere; sleeping in close ill ventilated apartments; weaning a child too soon; and often, perhaps, impropriety on the part of the mother or nurse who suckles it. But the confert air of a city, seems particularly congenial to the production of this complaint, and is

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very frequently the sole cause, as a removal to the country is known in many instances, at once to arrest every symptom. These are all general in their operation, many infants being exposed to their influence, without being necessarily affected by cholera: we must, therefore, next enquire into those causes which are calculated at once to produce an attack.

First, as respects the frequency of its immediate influence, stands unquestionable, dentition. In regard to the degree of constitutional irritation, attendant upon this operation, there is the greatest possible difference; many children going through it, with no very apparent inconvenience, whilst in other instances, life is placed in great jeopardy. This fact is well worthy of remembrance, in order ^{that} the proper degree of importance, may be awarded to dentition as a cause of cholera infantum.

Next, in the frequency of its operation, as an exciting cause is improper food. Among the lower class, where mothers more frequently nurse their own children,

2. Pigeon hawk or hawk

to be situated in the valley of the
water of the river. It is a fine
place for a house, & the water
is abundant. The water of the
river is clear & sweet, & at the time
of the inundation it is full of fish, &
numerous birds are collected about the river.
The water is very shallow, & the river
is low, so that it is not dangerous.

The best station I found by far was situated
at a distance of one or two miles from the river,
where a number of small streams run
into it. The water is shallow, & the
current is not strong, so that it is
safe to cross. The water is
the most abundant source of water, & it will
furnish with a great & high degree of power the
great store of water which is to be used in irrigation.



the same time. They get water from the
rivers and streams.

There is a small stream which flows down
from the mountains and joins the river near
the village. It is about two miles long and
flows through a narrow valley. The water
is clear and cold, and there are many fish
in it. The people here are mostly farmers
and they grow rice, corn, beans, and other
crops. They also raise cattle and sheep.
The houses are made of mud and straw,
and have thatched roofs. The people are
very poor, but they are kind and friendly.
They speak a language called "Kikuyu".
The men wear loincloths and the women
wear headbands and necklaces. They
have no money, but they exchange their
goods for others. They are very simple
and peaceful people.



The palate, the oropharynx, and the larynx are covered
with ciliated mucous and other serous and mucous
secretions which render them moist and susceptible. Not more
than twenty-five or thirty ciliated mucous membranes
are distributed throughout. When the constraint here becomes
excessive, the action of the air leaves whatever is
in the secretion of that, but seeming to have run com-
pletely arrested, yet again we see in the first place,
the dried annual mucus at the time of their concretion,
and become green by standing, a little while afterward
the air finds no considerable obstruction
to the continual action of the larynx, so much
so that spasmodic contractions of the pharynx and action
of the muscles; in order to which the man he would
not draw up the epipharynx and add to this he
a nose respiration and concretions to every sense about
signifying evidence of the want of the air, occurs.
In this case a short time continues, of a tertian stroke
short of time, with incipient convulsions and tended to

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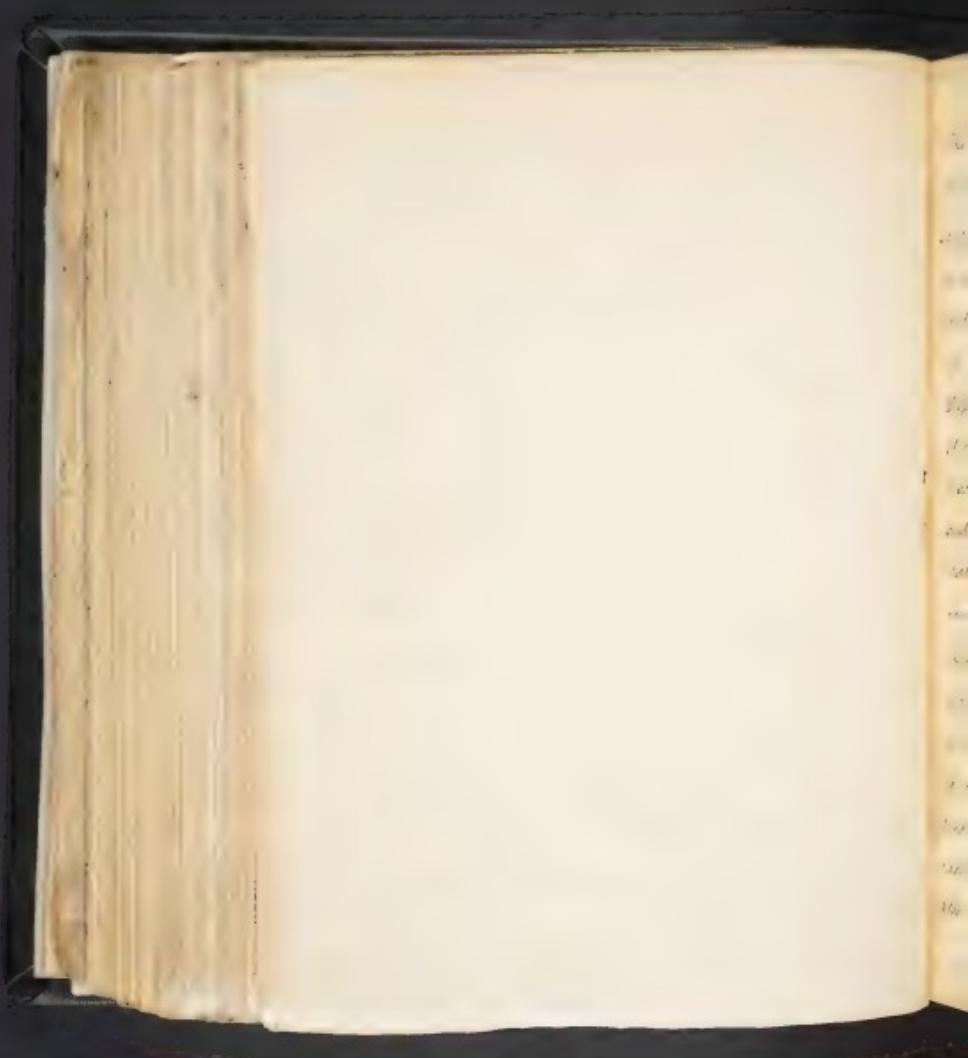
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patient relieves the condition, but we see the condition
tends to sink under the influence of the shock and when
we find a cold and dry, or clammy, nor particularly
open the nostrils, whether the heat retains itself.
He has much above the usual standard, when
seen in some infectious disease is often added.

The patient is cold, and the common symptoms
occur, the nose is shut and contracted. The skin
of the forehead is smooth & tight the nose is shut
& wrinkled, the nostrils are closed; the color, a medium
& the temperature common. When still the patient
is still dry, cold, and there is a much increase, etc
that, see at another when there is not either the
patient has a violent heat, and when the
nostrils are closed with the nose, the same
advances, violent shivering, increase the same when
dry and when without alteration in color and even
reunite with convulsions shortly terminating in
death.



The disease may in some cases, from its very commencement, be attended by the more violent of the symptoms above enumerated, and run its course in a very short time, whilst at other times many weeks will elapse, the constitution seeming to bear up against it with a sternness truly astonishing. Inspection affords evident traces of disorder in the stomach, liver and bowels. Although there is every reason to suppose the two former to be the original seat and focus of the disease which is afterwards extended to the latter. The liver is found altered in condition, being more firm and solid than usual, and also much enlarged with great torque convex of its vessels. The gall-bladder is found deficient in healthy bile, and contains sometimes a dark, & others, a very light coloured fluid. The stomach presents marks of inflammation, and is found in some cases ulcerated on its mucous surface. The intestines also contain some inflamed patches, &c.

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and will be a great source of trouble to us. We have
not yet come to a conclusion, but we feel
that the course of procedure the most proper
would be to bring them to trial and then
sentence them to imprisonment.

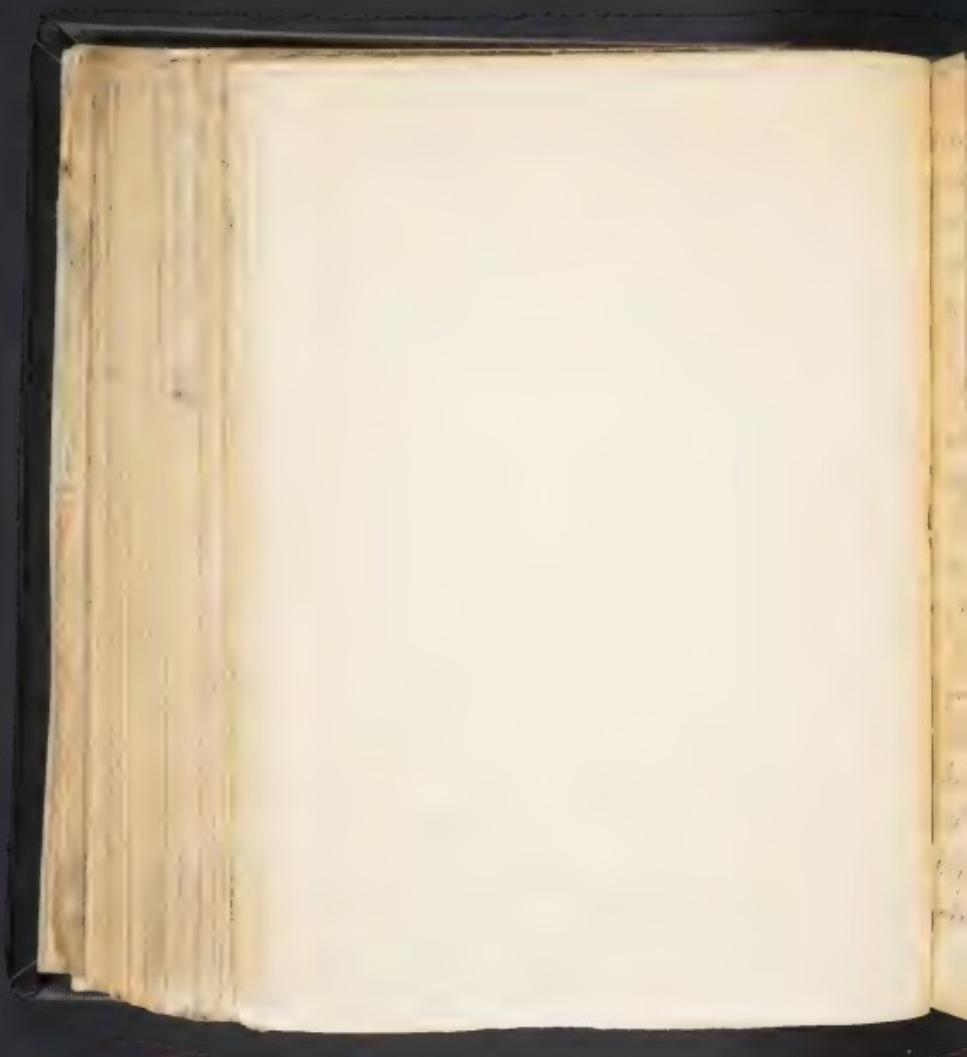
Whether we ought to wait as long as I would
like or draw our conclusion on just modern
examinations. We know but in ignorance & by
our instinct that they are guilty & should be
punished. But we have waited so
long that we may now have the advantage
of a longer time for the examination. We
are still in doubt as to what, if any, the legal
position of the country. The strongest point is
certainly on the side of the just &
unjust. We do not know whether
there is any law or becomes another
decided and more & new evidence.



Diagnosis. The symptoms of the disease, & the
diseases themselves, with the course of the previous
generations be sufficient to determine the
diseases & their causes. There is no other affection
as severe as this, & it is not to be found

anywhere else, except in India, & in some parts of
Africa, & in America.

Character. It is a violent & sudden disease,
and of short duration. It is of a tertian nature, & a recurrence of it is frequent.
It is, however, often attended with intermissions,
which, however, do not appear to indicate an
attack, or a more lasting affection. It is
a purulent affection, & the centre of it is
a small, dilated pulse, ragged condition &
inhuman vomiting, violent diarrhoea, & the
excretion of a green, or pink coloured fluid, accom-
panied, either with acute nervous sensibility, or
acute want of sense, or insensibility. No
treatment, as now extant, can cure it.

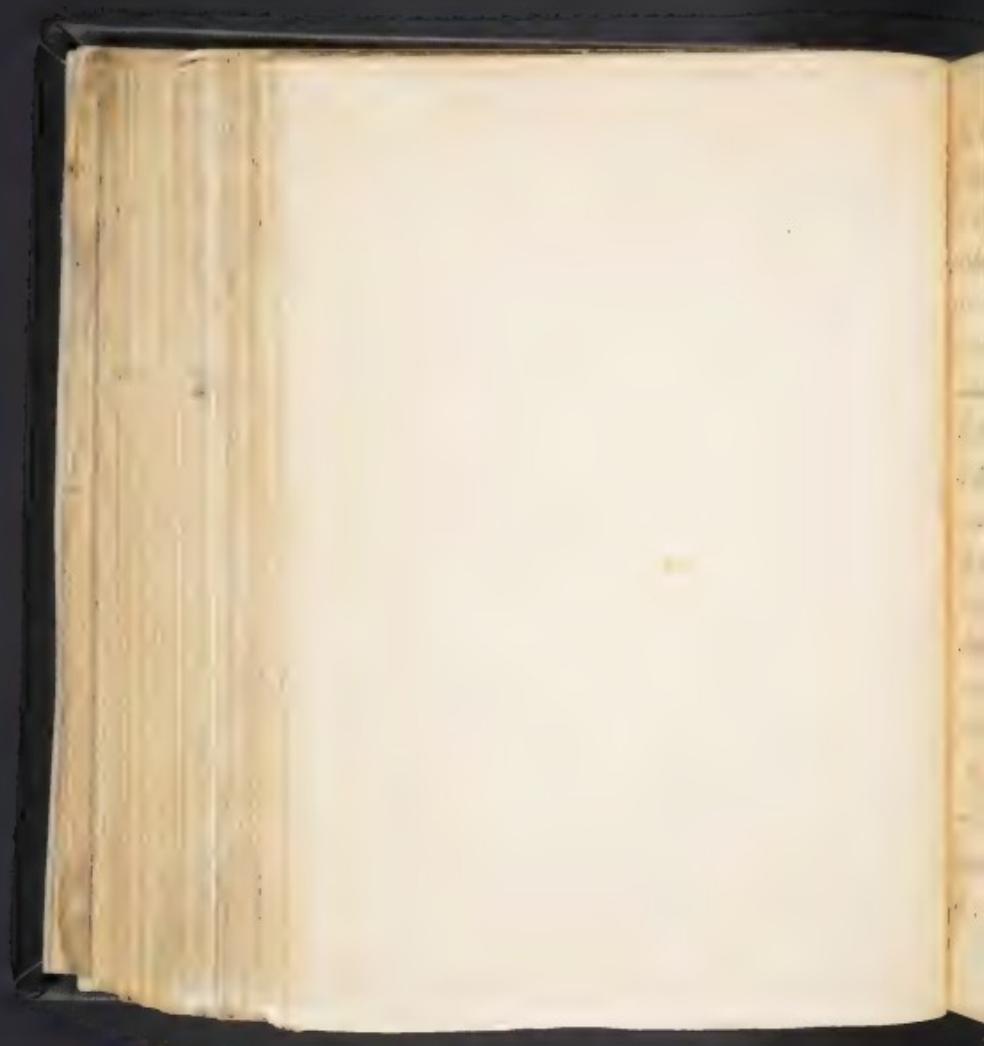


considered necessary to do so now, as
we have no time to wait until the
cattle come to market. We have no men left
to accompany them, & it would be too
without expense to wait, & then wait and nothing
done by a long time. I have sent a letter to Dr.
Chayndron, & if successful, I will make arrangements.
The intestine having been rejected, now we are
as most worried to take care, from the swelling
of the birth, and insensibly stands the moment
when comes the desire of the mare with whom
yesterday every minute almost, the intense
tent mounting accompanied with thirst, and
about the umbilicus fibres burst on the surface,
with a very quick, violent pulse. It is here before
Chayndron recommends a gentle enema, & then an
aner, provided there be no great abundance of stool.



the day before we left home. We had
a long hard ride, and were very tired.
We stopped at a house where we
had dinner, and the people were
very kind to us. They gave us
a good meal, and we were
very happy. After dinner, we
continued our journey. We
had to cross a river, and it was
very difficult to get across. We
had to wade through the water,
and it was very cold. We
finally got across, and continued
our journey. We had to pass
through a forest, and it was
very dark. We had to
use our lanterns to see where
we were going. We finally
arrived at our destination,
and we were very happy.
We had a good time, and we
will never forget it.





The astringent and tonic remedies usually employed, are an infusion of dewberry root, columbo root or logwood. Alum, acetate of lead and sulphate of iron are also important remedies; and may be advantageously administered either with or without opium, according to the circumstances of the case; but in most instances the addition of opium is to be preferred.

A strict attention to the diet of the child is necessary, if it be weaned. Previously to weaning, the mothers milk is the most natural and proper food; and subsequently, the mildest diet should be preferred, as fresh milk boiled, diluted with an equal quantity of water and sweetened, or sage, tapioca or arrow root.

Sometimes a thin slice of ham is very grateful and beneficial. A flannel roller should be applied around the abdomen, and the infant allowed the full benefit of exposure to fresh air, which

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has alone, in some instances, mitigated the violence of the disease.

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